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Gota Asano

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EXAMINER

RUTHKOSKY, MARK

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/715,744
Filing Date: November 18, 2003
Appellant(s): ASANO, GOTA

Lawrence E. Ashery
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/15/2008 appealing from the Office action mailed 7/10/2007

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,837,396	Han	11/1998
6,596,434	Yoshinaka	7/2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaka et al., (US 6,596,434), in view of admitted prior art in the specification (Figures 4a, 4b and top of page 11).

Yoshinaka teaches a cylindrical alkaline storage battery having a metallic case, a sealing plate for the metallic case and a spiral-shaped group of electrodes. The group of electrodes includes a positive electrode plate, a negative electrode plate and a separator. The sealing plate includes a cap-shaped terminal plate, which includes a cap part and a flange. A disc shaped filter is located on the underside of the flange. The disc shaped filter has a gas venting hole in its center. A space between the metallic case and the rims of the flange and of the filter is sealed with a gasket (abstract). An end part of the positive electrode plate is sticking out of the upper end of the negative electrode plate and connected to the bottom part of the filter (upper current collector) via the lead tab 9. A bottom end of the negative electrode is arranged to stick out of the bottom end of the positive electrode plate and is connected to the bottom part of the battery case via the lead tab 10 (6:24-32). A sealing agent such as asphalt may be applied between the flange 13b of the cap shaped terminal plate 13 and the filter 1 in order to resist leakage of electrolyte (8:10-19). Admitted prior art is noted in figures 4a, 4b and on the top of page 11 of the specification.

Yoshinaka does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of a sealing plate. The single sealing structure of Yoshinaka includes a sealing plate portion having an open central area and a terminal attached to and protruding from

the plate in an equivalent manner as claimed. However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because one of skill would have found the two piece terminal and sealing plate as shown in Figure 1 of the present invention obvious in view of the single piece terminal and sealing plate as shown in Figures 1-5 of Yoshinaka. The terminal of the upper collector is disposed through a hole in the center of a sealing gasket. The battery cap assembly of the claimed invention and the battery cap assembly of Yoshinaka are obvious variants and one of skill would reasonably expect them to function the same.

Regarding other elements of the claimed invention not specifically disclosed by Yoshinaka, Figures 4a and 4b in the present specification are admitted prior art. Furthermore, Applicant states "other structures are almost the same as those of the conventional alkaline storage battery". It would have been obvious to one skilled in the art to modify the structure of Yoshinaka using conventional electrode materials, collectors, connectors and structures known in the art.

Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han, (US 5,837,396), in view of admitted prior art in the specification (Figures 4a, 4b and top of page 11).

Han teaches a nickel metal hydride secondary battery (alkaline) having a cylindrically wound laminate comprising a positive electrode plate, a negative electrode plate and a separator plate interposed there between (1:12-15). As shown in Figure 2, the battery has a cap assembly 18 the covers an open end of the battery can. The cap assembly includes an upper collector

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having a hole for addition of electrolyte, a sealing plate having a cap shaped terminal that is adjacent the upper collector and a vent member. An electrode protrusion connects the electrode to a bottom surface of the upper collector.

Han does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of a sealing plate. The single sealing structure of Han includes a sealing plate portion having an open central area and a terminal attached to and protruding from the plate in an equivalent manner as claimed. However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because one of skill would have found the two piece terminal and sealing plate as shown in Figure 1 of the present invention obvious in view of the single piece terminal and sealing plate as shown in Figure 2 of Han. The battery cap assembly of the claimed invention and the battery cap assembly of Han are obvious variants and one of skill would reasonably expect them to function the same.

Regarding other elements of the claimed invention not specifically disclosed by Han, Figure 2 in the present specification are admitted prior art. Furthermore, Applicant states "other structures are almost the same as those of the conventional alkaline storage battery". It would have been obvious to one skilled in the art to modify the structure of Han using conventional electrode materials, collectors, connectors and structures known in the art.

One would find the modified structure, as claimed, obvious based on the teaching disclosed in the prior art of record.

(10) Response to Argument

Response to arguments with regard to the rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Yoshinaka et al., US 6,596,434 in view of admitted prior art in the specification (Figures 4a, 4b and top of page 11).

Appellant argues that the Examiner has not made the prima facie case of obviousness because the combination of the applied references in the manner proposed by the Examiner does not produce appellant's invention because the following features are missing from the combination: 1) a protrusion, electrically connecting the positive plate and the upper metal current collector; and 2) a terminal of the upper collector disposed through a hole in the center of the sealing plate. Appellant argues the Examiner's assertion that the other elements of the invention not shown by Yoshinaka are admitted prior art is incorrect. Appellant further asserts that the rejection relies on a conclusionary statement that is unsupported by any articulated reasoning.

These arguments are not persuasive. First, the admitted prior art applied as the secondary reference teaches a protrusion, electrically connecting the positive plate and the upper metal current collector (see Figures 4a, 4b.) Further, the Yoshinaka reference teaches a lead protrusion electrically connecting the positive plate 6 and the upper metal current collector terminal. One skilled in the art would have found the use of the connection taught in the conventional prior art in the battery of Yoshinaka obvious as each connection is taught to transfer electricity out of the battery by connecting the electrodes to the battery casing terminals.

Second, the rejection of record addresses the obviousness of the battery structure having a terminal of the upper collector disposed through a hole in the center of the sealing plate.

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Yoshinaka does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of a sealing plate. The battery of Yoshinaka includes a sealing plate portion having an open central area and a terminal attached to, and protruding from the plate, in an equivalent manner to the sealing plate and terminal, as claimed. The rejection clearly addresses the structure by showing that the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because one of skill would have found the claimed two piece terminal and sealing plate (as shown in Figure 1 of the present invention) obvious in view of the single piece terminal and sealing plate as shown in Figures 1-5 of Yoshinaka because the two claimed parts, the terminal of the upper collector disposed through a hole in the center of a sealing gasket, are welded together to form the same unitary structure as that taught in Yoshinaka. The battery cap assembly of the claimed invention and the battery cap assembly of Yoshinaka are obvious variants and one of skill would reasonably expect them to function the same because each is required to transfer electricity from the battery by connecting the electron generating electrodes to the battery casing terminals. Thus, the rejection includes a conclusionary statement that is supported by sound reasoning.

Appellant argues that the Examiner's conclusion of obviousness is a conclusory statement that does not detail or analyze the facts upon which it is based. No analysis of the structure shown in Figures 1-5 of Yoshinaka is provided. This is incorrect. The rejection clearly states that the claimed two piece terminal and sealing plate (as shown in Figure 1 of the present invention) obvious in view of the single piece terminal and sealing plate as shown in Figures 1-5 of Yoshinaka.

Appellant further argues that, “the person of ordinary skill in the art might be able to determine whether or not the structures contained in appellant's invention, once envisioned, would function in the same manner as those of Yoshinaka. But, to make this determination, the person of ordinary skill in the art must have knowledge of the invention. Consequently, the Examiner's assertion does not explain how or why one of ordinary skill in the art would envision these features in the first place. For this reason, the Examiner's assertion that appellant's invention is an obvious variant of the disclosures of Yoshinaka is a conclusory statement, unsupported by any explicit analysis.” These arguments are not persuasive. The admitted prior art applied as the secondary reference teaches a protrusion electrically connecting the positive plate and the upper metal current collector (see Figures 4a, 4b.) Further, the Yoshinaka reference teaches a lead protrusion electrically connecting the positive plate 6 and the upper metal current collector terminal. One skilled in the art would have found the use of the connection taught in the conventional prior art in the battery of Yoshinaka obvious as each connection is taught to transfer electricity out of the battery by connecting the electrodes to the battery casing terminals. Further, the rejection clearly states that the claimed two piece terminal and sealing plate (as shown in Figure 1 of the present invention) obvious in view of the single piece terminal and sealing plate as shown in Figures 1-5 of Yoshinaka.

Response to arguments with regard to the rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Han, US 5,837,396 in view of admitted prior art in the specification (Figures 4a, 4b and top of page 11).

Appellant argues that the Examiner has not made the prima facie case of obviousness because the combination of the applied references in the manner proposed by the Examiner does not produce appellant's invention because the following features are missing from the combination: 1) a protrusion, electrically connecting the positive plate and the upper metal current collector; and 2) a terminal of the upper collector disposed through a hole in the center of the sealing plate. Appellant argues the Examiner's assertion that the other elements of the invention not shown by Han are admitted prior art is incorrect. Appellant further asserts that the rejection relies on a conclusionary statement that is unsupported by any articulated reasoning.

These arguments are not persuasive. First, the admitted prior art applied as the secondary reference teaches a protrusion, electrically connecting a positive plate and the upper metal current collector (see Figure 2.) Further, the Han reference teaches a lead protrusion electrically connecting the positive plate and the upper metal current collector terminal. One skilled in the art would have found the use of the connection taught in the conventional prior art in the battery of Han obvious as each connection is taught to transfer electricity out of the battery by connecting the electrodes to the battery casing terminals.

Second, the rejection of record addresses the obviousness of the battery structure having a terminal of the upper collector disposed through a hole in the center of the sealing plate. Han does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of a sealing plate. The battery of Han includes a sealing plate portion having an open central area and a terminal attached to, and protruding from the plate, in an equivalent manner to the sealing plate and terminal, as claimed. The rejection clearly addresses the structure by showing that the invention as a whole would have been obvious to one having ordinary skill in the art at

the time the invention was made because one of skill would have found the claimed two piece terminal and sealing plate (as shown in Figure 1 of the present invention) obvious in view of the single piece terminal and sealing plate as shown in Figure 2 of Han because the two claimed parts, the terminal of the upper collector disposed through a hole in the center of a sealing gasket, form the same unitary structure as that taught in Han. The battery cap assembly of the claimed invention and the battery cap assembly of Han are obvious variants and one of skill would reasonably expect them to function the same because each is required to transfer electricity from the battery by connecting the electron generating electrodes to the battery casing terminals. Thus, the rejection includes a conclusionary statement that is supported by sound reasoning.

Appellant argues that the Examiner's conclusion of obviousness is a conclusory statement that does not detail or analyze the facts upon which it is based. No analysis of the structure shown in Figure 2 of Han is provided. This is incorrect. The rejection clearly states that the claimed two piece terminal and sealing plate (as shown in Figure 1 of the present invention) obvious in view of the single piece terminal and sealing plate as shown in Figure 2 of Han.

Appellant further argues that, "the person of ordinary skill in the art might be able to determine whether or not the structures contained in appellant's invention, once envisioned, would function in the same manner as those of Han. But, to make this determination, the person of ordinary skill in the art must have knowledge of the invention. Consequently, the Examiner's assertion does not explain how or why one of ordinary skill in the art would envision these features in the first place. For this reason, the Examiner's assertion that appellant's invention is an obvious variant of the disclosures of Han is a conclusory statement, unsupported by any explicit analysis." These arguments are not persuasive. The admitted prior art applied as the

secondary reference teaches a protrusion electrically connecting the positive plate and the upper metal current collector (see Figure 2.) Further, the Han reference teaches a lead protrusion electrically connecting the positive plate and the upper metal current collector terminal. One skilled in the art would have found the use of the connection taught in the conventional prior art in the battery of Han obvious as each connection is taught to transfer electricity out of the battery by connecting the electrodes to the battery casing terminals. Further, the rejection clearly states that the claimed two piece terminal and sealing plate (as shown in Figure 1 of the present invention) obvious in view of the single piece terminal and sealing plate as shown in Figure 2 of Han.

The previous sections address statements found in section C. "Response to Examiner's Response to Arguments" section. The teachings applied in the rejections are found in the prior art and the following citation is proper: In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The rejection only takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure. The rejection combines the teachings of the cited prior art with Appellant's admitted

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prior art and shows how a structure of two separate components welded together form the equivalent unitary structure taught in Han and Yoshinaka, as applied.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Mark Ruthkosky/

Primary Patent Examiner

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Conferees:

/Patrick Ryan/, SPE 1795

/William Krynski/, QAS, TC 1700